

What is claimed is:

1. A silencer comprising:
 - (a) first and second body sections spaced from each other to define a gas flow path therebetween;
 - (i) the first body section including a base, sidewall, and an upper wall;
 - (A) the upper wall having a center region with a concave wall smoothly sloping downwardly terminating at the sidewall;
 - (B) the base, sidewall, and upper wall together forming a first body section interior volume;
 - (C) a first region of packing material being within the interior volume and pressed against the base, sidewall, and upper wall;
 - (ii) the second body section having a second body section base, outer sidewall, inner sidewall, and upper wall;
 - (A) the second body section base, outer sidewall, inner sidewall, and upper wall together defining a second body section interior volume;
 - (B) the second body section having a center aperture;
 - (1) the inner sidewall lining the center aperture;
 - (C) a second region of packing material being within the second body section interior volume;
 - (D) the upper wall center region of the first body section projecting into the center aperture of the second body section; and
 - (b) the upper wall of the first body section and the second body section inner sidewall and the second body section base together define the gas flow path.
 2. A silencer according to claim 1 further comprising:

- (a) a frame arrangement including an outer tubular housing with an inner volume;
 - (i) the second body section being secured to the frame arrangement with the outer tubular housing extending through the second body section center aperture;
 - (ii) the first body section being oriented relative to the frame arrangement such that the center region of the upper wall extends into the inner volume of the outer tubular housing.

3. A silencer according to claim 1 wherein:

- (a) each of the first body section and second body section comprises steel.

4. A silencer for a gas turbine air intake system; the silencer comprising:

- (a) a first body section including a base, sidewall, and an upper wall;
 - (i) the upper wall having a center region with a concave wall smoothly sloping downwardly terminating at the sidewall;
 - (ii) the sidewall joining together the base and the upper wall;
 - (iii) the base, sidewall, and upper wall together forming a first body section interior volume;
 - (iv) a first region of packing material being within the interior volume and pressed against the base, sidewall, and upper wall;
 - (v) the base, sidewall, and upper wall comprising steel;
- (b) a second body section having a second body section base, outer sidewall, inner sidewall, and upper wall;
 - (i) the second body section base, outer sidewall, inner sidewall, and upper wall together defining a second body section interior volume;
 - (ii) the second body section having a center aperture;
 - (A) the inner sidewall lining the center aperture;
 - (iii) a second region of packing material being within the second body section interior volume;

- (c) a frame arrangement including an outer tubular housing with an inner volume;
 - (i) the second body section being secured to the frame arrangement with the outer tubular housing extending through the second body section center aperture;
 - (ii) the first body section being oriented relative to the frame arrangement such that the center region of the upper wall extends into the inner volume of the outer tubular housing; and
 - (iii) the upper wall of the first body section and the second body section inner sidewall and the second body section base together defining a gas flow path from the inner volume of the tubular housing.

5. A silencer according to claim 4 wherein:

- (a) the first region of packing material is contained within a protective film; and
- (b) the second region of packing material is contained within a protective film.

6. A silencer according to claim 5 further comprising:

- (a) a fan supported by the center region of the upper wall; the fan being within the inner volume of the tubular housing.

7. A silencer according to claim 6 further comprising:

- (a) a hopper includes a plurality of chambers surrounding the fan; the chambers having a region of packing material therein.

8. A gas turbine air intake system comprising:

- (a) a frame;
- (b) a plurality of filter elements supported by the frame; the filter elements having an upstream portion and a downstream portion;

- (i) the upstream portion of the filter elements being located in a dirty air plenum, and the downstream portion of the filter elements being located in a clean air plenum;
- (c) a reverse-pulse cleaning system oriented to periodically direct pressurized fluid into the filter elements through the downstream portion;
- (d) a fan arrangement in gas flow communication with the dirty air plenum; and
- (e) a silencer arrangement supported by the frame and in gas flow communication with the fan arrangement;
 - (i) the silencer arrangement including first and second body sections spaced from each other to define a gas flow path therebetween.

9. A gas turbine air intake system according to claim 8 further including:

- (a) a hopper arrangement between the fan arrangement and the silencer arrangement.

10. A gas turbine air intake system according to claim 9 wherein:

- (a) the first body section includes a base, sidewall, and an upper wall;
 - (i) the upper wall having a center region with a concave wall smoothly sloping downwardly terminating at the sidewall;
 - (ii) the base, sidewall, and upper wall together forming a first body section interior volume;
 - (iii) a first region of packing material being within the interior volume and pressed against the base, sidewall, and upper wall;
- (b) the second body section has a second body section base, outer sidewall, inner sidewall, and upper wall;
 - (i) the second body section base, outer sidewall, inner sidewall, and upper wall together defining a second body section interior volume;
 - (ii) the second body section having a center aperture;
 - (A) the inner sidewall lining the center aperture;

- (iii) a second region of packing material being within the second body section interior volume;
 - (iv) the upper wall center region of the first body section projecting into the center aperture of the second body section; and
 - (c) the upper wall of the first body section and the second body section inner sidewall and the second body section base together define the gas flow path.
- 11. A gas turbine air intake system according to claim 10 wherein:
 - (a) the silencer arrangement permits gas flow in first and second conditions;
 - (i) in a first condition, gas flows from the dirty air plenum, through the silencer arrangement, and to external atmosphere; and
 - (ii) in a second condition, gas flows from external atmosphere, through the silencer arrangement, and to the dirty air plenum.
- 12. A gas turbine air intake system according to claim 10 wherein:
 - (a) the hopper arrangement includes a plurality of chambers surrounding the fan arrangement; the chambers having a region of packing material therein.
- 13. A gas turbine air intake system according to claim 12 wherein:
 - (a) said hopper arrangement includes a plurality of hoppers supported by the frame, the hoppers being located below one or more columns of filter elements;
 - (b) said fan arrangement includes a plurality of fans, one fan corresponding to each hopper; and
 - (c) said silencer arrangement includes a plurality of silencers; one silencer corresponding to each fan.
- 14. A method of attenuating noise from a gas turbine air intake system; the method comprising:

- (a) directing air from a dirty air plenum of a gas turbine air intake system through an air flow path defined by first and second body sections;
 - (i) the first body section including a base, sidewall, and an upper wall;
 - (A) the upper wall having a center region with a concave wall smoothly sloping downwardly terminating at the sidewall;
 - (B) the base, sidewall, and upper wall together forming a first body section interior volume;
 - (C) a first region of packing material being within the interior volume and pressed against the base, sidewall, and upper wall;
 - (ii) the second body section having a second body section base, outer sidewall, inner sidewall, and upper wall;
 - (A) the second body section base, outer sidewall, inner sidewall, and upper wall together defining a second body section interior volume;
 - (B) the second body section having a center aperture;
 - (1) the inner sidewall lining the center aperture;
 - (C) a second region of packing material being within the second body section interior volume;
 - (D) the upper wall center region of the first body section projecting into the center aperture of the second body section; and
 - (iii) the upper wall of the first body section and the second body section inner sidewall and the second body section base together define the air flow path.